

## Construction Protection

When installing CMU or masonry, the top of the wall and openings need to be protected from moisture at all times until the roof or opening flashing is installed. **Plastic or a tarp is best.**



Efflorescence will develop even when the CMU is grouted solid. In fact, more efflorescence will develop because of the excessive amount of salts in the grout that will migrate to the surface.

If efflorescence does develop, do not try and wash it off, as that will produce more efflorescence. Wire brush the surface clean.



Proper protection is key to a clean surface and a surface ready for membrane installation.



### Lack of proper protection

Efflorescence that develops creates a bond breaker that will inhibit the bond of waterproofing or an air barrier and potentially will push off the membrane over time.

Always make sure that the efflorescence is removed 100% before membrane is installed.

The following must occur in order for efflorescence to exist:

1. Salts or other minerals must be present or in contact with the masonry. Such as a cementitious product (grout, mortar, or concrete).
2. Water in the path of salts or other minerals for a period of time sufficient to dissolve them and bring them to the surface.
3. Masonry must have a pore structure for the salt-water to migrate to the surface. CMU, masonry, grout, mortar, and concrete has the ideal pore structure.

⇒ Efflorescence occurs when water containing dissolved salts or other minerals enter the wall system, either during construction or after, through a leak. The water then evaporates, leaving salts or other minerals on the surface.

⇒ Rain water is the primary source of moisture with water from irrigation second, and condensation from within the wall is third.

⇒ Moisture from rain infiltration during construction as well as storing masonry on the ground are the main moisture components for efflorescence.

⇒ Salts & other minerals can be absorbed from the ground or concrete foundation though capillary action, sometimes, several feet up into the wall.

⇒ Blocked/sealed weep holes creates a water block which causes water to exit through the masonry.

